

TABLE III-1

1975 RELEASES OF RADIOACTIVITY FROM SRP, curies

A. To Atmosphere

Nuclide	200-F	200-H	100-P, K, C	300-M	700-A	400-D	Total
³ H	325,000 ^{a,c}		159,000	-	600	3060	488,000
¹⁴ C	27 ^c		39	-	-	-	66
⁴¹ Ar	-		65,000	-	-	-	65,000
⁸⁵ Kr	520,000 ^c		-	-	-	-	520,000
^{85m} Kr	-		370	-	-	-	370
⁸⁷ Kr	-		1200	-	-	-	1200
⁸⁸ Kr	-		860	-	-	-	860
^{131m} Xe	5.8 ^c		-	-	-	-	5.8
¹³³ Xe	-		1100	-	-	-	1100
¹³⁵ Xe	-		730	-	-	-	730
¹²⁹ I	0.14 ^c		-	-	-	-	0.14
¹³¹ I	0.014	0.099	0.003	-	0.008	-	0.12
⁶⁰ Co	-	-	-	-	0.0011	-	0.0011
^{89,90} Sr	0.003	0.002	-	-	-	-	0.005
⁹⁵ Zr	0.004	0.010	-	-	-	-	0.014
⁹⁵ Nb	0.014	0.010	-	-	-	-	0.024
¹⁰³ Ru	0.0007	0.0011	-	-	-	-	0.0018
¹⁰⁶ Ru	0.010	0.027	-	-	-	-	0.037
¹³⁴ Cs	-	0.0002	-	-	-	-	0.0002
¹³⁷ Cs	0.0006	0.0005	-	-	-	-	0.0011
¹⁴¹ Ce	0.00020	0.00008	-	-	-	-	0.00028
¹⁴⁴ Ce	0.008	0.008	-	-	-	-	0.016
Other β	0.0001	0.00002	0.00035	-	0.00003	-	0.0005
U	0.0047	0.00003	-	3×10^{-6}	-	-	0.0047
²³⁸ Pu	0.00001	0.00196	-	-	-	-	0.002
²³⁹ Pu	0.00012	0.00040	-	-	-	-	0.00052
Gross ^{a,b}	-	-	0.000014	7×10^{-6}	3×10^{-6}	-	0.00002

a. Includes 182,000 Ci released on 12/31/75.

b. Gross alpha curies are unidentified alpha-emitting radionuclides. Curie content is based on counting on an instrument using ²³⁹Pu as a calibration source.

c. Combined 200-F and 200-H.

TABLE III-1 (Continued)

B. To Plant Streams

Nuclide	Migration from 200-F & 200-H		Four Mile Creek Bed Description	100-P, K, C	Migration from 100-K 50 MGB ^a		Par Pond Overflow	300-M	700-A	400-D	Total
	200-F	200-H			50 MGB ^a	Par Pond Overflow					
³ H	19	55	8,900	-	23,000	18,600	3,500	-	-	1,600	55,700
⁸⁸ Sr	-	-	-	-	0.014	-	-	-	-	-	0.014
⁹⁰ Sr	0.005	0.0075	1.1	-	0.11	-	-	-	-	0.0005	1.2
⁹¹ Y	-	-	-	-	0.014	-	-	-	-	-	0.014
⁹⁵ Zr-Nb	-	-	-	-	0.039	-	-	-	-	-	0.039
^{103,106} Ru	-	-	-	-	0.054	-	-	-	-	-	0.054
¹³⁴ Cs	-	-	-	-	0.18	-	-	-	-	-	0.18
¹³⁷ Cs	0.012	0.008	-	0.3	0.44	-	-	-	-	0.003	0.76
^{141,144} Ce	-	-	-	-	0.039	-	-	-	-	-	0.039
¹⁴⁷ Pm	-	-	-	-	0.034	-	-	-	-	-	0.034
¹⁴⁹ Np	-	-	-	-	0.008	-	-	-	-	-	0.008
¹⁵² P	-	-	-	-	0.002	-	-	-	-	-	0.002
¹⁵³ S	-	-	-	-	0.29	-	-	-	-	-	0.29
¹⁵¹ Cr	-	-	-	-	0.12	-	-	-	-	-	0.12
^{58,60} Co	-	-	-	-	0.009	-	-	-	-	-	0.009
⁶⁵ Zn	-	-	-	-	0.002	-	-	-	-	-	0.002
^{124,128} Sb	-	-	-	-	0.001	-	-	-	-	-	0.001
Other β	0.033	0.004	-	-	-	-	-	-	0.005	0.02	0.062
U	-	-	-	-	-	-	-	0.44	-	-	0.44
Gross α^b	0.005	0.002	-	-	0.01	-	-	-	0.002	0.00009	0.019

^a. 50-million-gallon basin.^b. Gross alpha curies are unidentified alpha-emitting radionuclides. Curie content is based on counting on an instrument using ²³⁹Pu as a calibration source.

TABLE III-1 (Continued)

C. To Seepage Basins, Other Unlined Earthen Basins, and Cooling Water Impoundments

<u>Nuclide</u>	<u>200-F Seepage Basin</u>	<u>200-H Seepage Basin</u>	<u>100-K 50 MGB^a</u>	<u>100-L Oil & Chem Pit</u>	<u>Par Pond (from 100-P)</u>	<u>700-A Seepage Basin</u>	<u>300-M Settling Basin</u>	<u>Total</u>
³ H		14,000 ^c	15,600	200	5,900	4	-	36,000
⁸⁹ Sr	0.047	0.35	0.001	0.002	-	-	-	0.40
⁹⁰ Sr	0.12	0.68	-	0.001	-	0.0007	-	0.80
⁹¹ Y	-	-	0.001	0.002	-	-	-	0.003
⁹⁵ Zr	0.73	0.24	0.003	0.004	-	-	-	0.98
⁹⁵ Nb	0.43	0.46			-	-	-	0.89
¹⁰³ Ru	0.08	0.20		0.002	-	-	-	0.28
¹⁰⁶ Ru	4.0	2.3	-		-	-	-	6.3
¹²⁵ Sb	-	0.07	0.037	-	-	-	-	0.11
¹³¹ I	0.02	0.20	0.003	-	-	-	-	0.22
¹³⁴ Cs	0.07	0.41	0.007	0.001	-	-	-	0.49
¹³⁷ Cs	0.98	6.2	0.084	0.002	-	-	-	7.3
¹⁴¹ Ce	0.001	0.015	0.004	0.001	-	-	-	0.021
¹⁴⁴ Ce	0.19	1.26	-	-	-	-	-	1.45
¹⁴⁷ Pm	0.19	1.14	0.03	-	-	-	-	1.36
³² P	-	-	0.008	-	-	-	-	0.008
³⁵ S	-	-	0.051	-	-	-	-	0.051
⁵¹ Cr	-	4.5	0.058	-	-	-	-	4.6
⁵⁸ Co	-	0.48	-	-	-	-	-	0.48
⁶⁰ Co	-	0.41	0.001	0.007	-	-	-	0.42
⁶⁵ Zn	-	0.57	-	-	-	-	-	0.57
Other β	0.014	0.11	-	-	-	0.008	-	0.13
U	0.12	0.0007	-	-	-	0.001	0.019	0.14
²³⁸ Pu	0.030	0.12	-	-	-	0.001	-	0.15
²³⁹ Pu	0.016	0.014	-	-	-	-	-	0.03
Gross α^b	-	-	0.002	-	-	0.003	-	0.005

a. 50-million-gallon basin.

b. Gross alpha curies are unidentified alpha-emitting radionuclides. Curie content is based on counting on an instrument using ²³⁹Pu as a calibration source.

c. Combined 200-F and 200-H.